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EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,220	FRIGON, JEAN-FRANCOIS	
	Examiner	Art Unit	
	Juan A. Torres	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 May 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5-22-06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The modifications to the drawings were received on 05/22/2006. These modifications are accepted by the Examiner.

In view of the amendment filed on 05/22/2006, the Examiner withdraws Drawing objections of the previous Office action.

The drawings are objected to because:

a) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both y_t and $|y_t|$ (see figures 1 and 3.

b) In figure 3 "$c_{b,N-1}$" is improper; it is suggested to be changed to "$c^*_{b,N-1}$" (see figure 3 of the original filed application).

c) In figure 3 "$c_{b,N-2}$" is improper; it is suggested to be changed to "$c^*_{b,N-2}$" (see figure 3 of the original filed application).

d) In figure 3 "$c_{b,0}$" is improper; it is suggested to be changed to "$c^*_{b,0}$" (see figure 3 of the original filed application).

e) In figure 4 "$c_{b,N-1+t-T}$" is improper; it is suggested to be changed to "$c^*_{b,N-1+t-T}$" (see figure 4 of the original filed application).

f) In figure 12 "c_1" is improper; it is suggested to be changed to "c^*_1" (see figure 12 of the original filed application).

g) In figure 12 "c_M" is improper; it is suggested to be changed to "c^*_M" (see figure 12 of the original filed application).

h) In figure 18 block 183 "Average Selection Diversity DD Output Value " is improper; it is suggested to be changed to "Average Coherently weighted combined Diversity DD output value" (see figure 18 of the original filed application).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The modifications to the specification were received on 05/22/2006. These modifications are not accepted by the Examiner.

In view of the amendment filed on 05/22/2006, the Examiner withdraws Specification objections of the previous Office action.

The disclosure is objected to because of the following informalities: in page 12 line 1 the recitation " comprising an RF down-converter 69 and a data modulator" is improper; it is suggested to be changed to "comprising an RF down-converter 69 and a data demodulator".

Appropriate correction is required.

Response to Arguments

Applicant's arguments filed on 05/22/2006 have been fully considered but they are not persuasive.

The Applicant contends, "It would not have been obvious at the time of the invention to use diversity techniques employed for data demodulation to achieve code synchronization because the prior art as a whole teaches away from such a combination. Known diversity receivers for data demodulation typically are used only after code synchronization has been achieved. Thus, the prior art as a whole teaches away from using diversity techniques prior to code synchronization. In contrast, the present invention, as amended, claims processing the received signal by using at least two diversity branches to determine at least one diversity output prior to achieving code synchronization".

The Examiner disagrees and asserts, that, admitted prior art doesn't disclose that diversity techniques can not be employed with code synchronization, for this reason, admitted prior art doesn't teach away. For these reasons and the reason stated en the previous Office action, the rejection of claims 1, 12, 23 and 24 are maintained.

The Applicant contends, "The statement that, "At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the code synchronization disclosed by the clock timing extraction circuit with the diversity technique disclosed by the clock timing extraction circuit." is not well understood. The cited prior art does not disclose clock timing extraction in connection diversity reception. As set forth above, employment of known diversity techniques, as described in the written description, assumes that frequency offsets have already been determined. Moreover, the stated motivation for the combination, i.e., to improve the quality of the data reception of a receiver, is inapplicable because code synchronization is not the same as data detection".

The Examiner disagrees and asserts, that, as indicated in the previous Office action, admitted prior art concerning code synchronization and admitted prior art concerning diversity are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the code synchronization disclosed by admitted prior art with the diversity technique disclosed by admitted prior art. The suggestion/motivation for doing so would have been to improve the quality of the data reception of a receiver (admitted prior art page 11 lines 2-4 "Diversity is a technique used in wireless communication systems to provide significant performance improvement and has been traditionally applied to improve the quality of data detection in wireless communication systems"). For these reasons and the reason stated en the previous Office action, the rejection of claims 1, 12, 23 and 24 are maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (with Llang (US 20030026348 A1) paragraph [0176] to support motivation disclosed by admitted prior art).

As per claims 1 and 12, admitted prior art discloses a method for synchronizing a mobile terminal to a wireless network comprising receiving a signal comprising a synchronization code broadcast by a base-station with a mobile terminal (figure 1 and figure 2 block 1 page 3 lines 4-22); processing said received signal to determine at least one output value prior to achieving code synchronization (figure 2 block 13 page 3 lines 4-22); processing the output value to determine said synchronization code (figure 2 blocks 15, 19, 21 and 17 page 3 lines 4-22); processing said received signal to synchronize a local oscillator of said mobile terminal based on said synchronization code (page 8 lines 11-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20). Admitted prior art concerning code synchronization and admitted prior art concerning diversity are analogous art because they are from the same field of endeavor At the time of the invention, it would have been obvious to a person of ordinary skill in the art

to incorporate in the code synchronization disclosed by admitted prior art with the diversity technique disclosed by admitted prior art. The suggestion/motivation for doing so would have been to improve the quality of the data reception of a receiver (admitted prior art page 11 lines 2-4. Llang (US 20030026348 A1) discloses the use of antenna diversity in CDMA mobile terminals (paragraph [0176]) to achieve larger diversity gains).

As per claims 2 and 13, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining the absolute value (figure 1 and figure 2 block 1 page 3 lines 4-22); and selecting which said output value has the largest value, thereby determining said diversity output value (figure 2 block 13 page 3 lines 4-22). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 3 and 14, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining the absolute value (figure 1 and figure 2 block 1 page 3 lines 4-22); and combining output values thereby producing said diversity output value (figure 7 block 89 page 11 line 1 to page 12 line 20). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 4 and 15, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining the absolute value (figure 1 and figure 2 block 1 page 3 lines 4-22); determining an estimate of the relative power of each said diversity

branch relative to the power of the remaining diversity branches (figures 6 and 7 page 11 line 1 to page 12 line 20); weighting for each said diversity branch by said relative power of said diversity branch thereby forming a weighted filter output for each said diversity branch (figure 7 block 89 page 11 line 1 to page 12 line 20); and combining said weighted filter output values thereby producing a diversity output value (figure 7 block 89 page 11 line 1 to page 12 line 20). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 5 and 16, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining the relative instantaneous parallel channel estimate (figures 3 and 4 page 4 line 21 to page 7 line 14 to page 8 line 9); determining the complex conjugate of each said relative instantaneous channel estimate (figures 3 and 4 page 8 line 9); weighting each said filter output by the complex conjugate of said relative instantaneous channel estimate thereby producing a co-phased and weighted filter output (figures 3 and 4 page 8 line 9); combining each filter output thereby producing a weighted output magnitude (figures 3 and 4 page 8 line 9); and determining the real part of said co-phased, output magnitude, thereby producing an output value (figures 3 and 4 page 8 line 9). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 6 and 17, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses generating a plurality of partial code correlations yk, each said partial code correlation being characterized by a time index k (page 8 line 11 to page 9 line 3); Fourier transforming said plurality of partial code correlations yk thereby forming a plurality of Fourier transform vectors (page 9 lines 4-15); determining the absolute value of each element of each said Fourier transform vector (figure 1 and figure 2 block 1 page 3 lines 4-22); selecting vector element with largest absolute value, thereby forming a selection diversity Fourier transform vector X(p) (figure 2 block 13 page 3 lines 4-22 and page 9 lines 4-15); averaging said selection diversity Fourier transform vector over at least one Fourier transform block thereby forming an averaged selection Fourier transform vector (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and selecting the element of said averaged selection diversity Fourier transform vector with largest absolute value (figure 2 block 13 page 3 lines 4-22 and page 9 lines 4-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 7 and 18, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses generating a plurality of partial code correlations yk, each said partial code correlation being characterized by a time index k (page 8 line 11 to page 9

line 3); Fourier transforming said plurality of partial code correlations yk thereby forming a plurality of Fourier transform vectors (page 9 lines 4-15); determining the absolute value of each element (figure 1 and figure 2 block 1 page 3 lines 4-22); summing the absolute value, thereby forming a non-coherent combining (figure 1 and figure 2 block 1 page 3 lines 4-22; and page 5 line 16 to page 6 line 13); averaging said non-coherent combining forming an averaged non-coherent combining vector (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and selecting the element of said averaged non-coherent combining diversity vector with largest absolute value (figure 2 block 13 page 3 lines 4-22 and page 9 lines 4-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 8 and 19, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining relative power of each said diversity branch relative to other said diversity branches (figures 6 and 7 page 11 line 1 to page 12 line 20); generating a plurality of partial code correlations yk, each said partial code correlation being characterized by a time index k (page 8 line 11 to page 9 line 3); Fourier transforming said plurality of partial code correlations yk thereby forming a plurality of Fourier transform vectors (page 9 lines 4-15); determining the absolute value of each element (figure 1 and figure 2 block 1 page 3 lines 4-22); weighting the absolute value

of each said element vector by the relative power of said diversity branch thereby forming weighted vector elements (figure 7 block 87 page 11 line 1 to page 12 line 20); summing the absolute value, thereby forming a non-coherent combining (figure 1 and figure 2 block 1 page 3 lines 4-22; and page 5 line 16 to page 6 line 13); averaging said non-coherent combining forming an averaged non-coherent combining vector (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and selecting the element of said averaged non-coherent combining diversity vector with largest absolute value (figure 2 block 13 page 3 lines 4-22 and page 9 lines 4-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 9 and 20, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining a plurality of partial code correlations yk, each said partial code correlation yk being characterized by a time index k (page 8 line 11 to page 9 line 3); determining the complex conjugate y*k (page 9 line 16 to page 10 line 4); determining a differential detection output X(k) according to X(k)=yk y*(k-1) (page 9 line 16 to page 10 line 4); determining the absolute value (figure 1 and figure 2 block 1 page 3 lines 4-22); selecting the largest absolute value thereby forming a selection differential detection output (figure 2 block 13 page 3 lines 4-22); determining a plurality of selection detection outputs for a plurality of k index values (figure 2 block 11 page 3

lines 4-22); averaging said plurality of selection forming an average selection output (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and determining the synchronization frequency from said averaged (page 8 lines 11-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 10 and 21, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining a plurality of partial code correlations yk, each said partial code correlation yk being characterized by a time index k (page 8 line 11 to page 9 line 3); determining the complex conjugate yk* of partial code correlation yk (page 9 line 16 to page 10 line 4); determining a differential detection output X(k) according to X(k)=yk y(k-1)* (page 9 line 16 to page 10 line 4); combining said differential detection output values thereby producing coherent diversity differential detection output value (figure 7 block 89 page 11 line 1 to page 12 line 20); determining a coherent detection outputs for a plurality of k index values (page 7 line 14 to page 8 line9); averaging said plurality of coherent differential detection outputs thereby forming an average coherent detection output (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and determining the synchronization frequency from said averaged coherent differential detection output (page 8 lines 11-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claims 11 and 22, admitted prior art discloses claims 1 and 12. Admitted prior art also discloses determining a plurality of partial code correlations yk, each said partial code correlation yk being characterized by a time index k (page 8 line 11 to page 9 line 3); determining the complex conjugate yk* of partial code correlation yk (page 9 line 16 to page 10 line 4); determining an estimate of the relative power of each said diversity branch relative to the power of the remaining diversity branches (figures 6 and 7 page 11 line 1 to page 12 line 20); determining a differential detection output X(k) according to X(k)=yk y(k-1)* (page 9 line 16 to page 10 line 4); weighting the absolute value of each said element vector by the relative power of said diversity branch thereby forming weighted vector elements (figure 7 block 87 page 11 line 1 to page 12 line 20); combining said differential detection output values thereby producing coherent diversity differential detection output value (figure 7 block 89 page 11 line 1 to page 12 line 20); determining a coherent detection outputs for a plurality of k index values (page 7 line 14 to page 8 line 9); averaging said plurality of coherent differential detection outputs thereby forming an average coherent detection output (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); and determining the synchronization frequency from said averaged coherent differential detection output (page 8 lines 11-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claim 23, admitted prior art discloses method for synchronizing a mobile terminal to a wireless WCDMA network comprising the steps of receiving a signal

comprising a primary synchronization code, a secondary synchronization code and a gold code, broadcast by a base-station with a mobile terminal (page 4 lines 12-20 and page 28 line15 to page 29 line 8); processing said received signal to determine the primary synchronization code (page 4 lines 12-20 and page 28 line15 to page 29 line 8); determining the slot boundary based upon the determination of said primary synchronization code (page 4 lines 12-20 and page 28 line15 to page 29 line 8); processing said received signal to determine the secondary synchronization code based upon said slot boundary (page 4 lines 12-20 and page 28 line15 to page 29 line 8); determining the code group based upon the determination of said secondary synchronization code (page 4 lines 12-20 and page 28 line15 to page 29 line 8); processing said received signal to determine the gold code based upon said slot boundary and said code group (page 4 lines 12-20 and page 28 line15 to page 29 line 8); and synchronizing the local oscillator of said mobile terminal based upon said gold code (page 8 lines 11-15). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

As per claim 24, admitted prior art discloses a method for synchronizing a mobile terminal to a wireless WCDMA network comprising receiving a signal comprising a primary synchronization code, a secondary synchronization code and a gold code, broadcast by a base-station with a mobile terminal, wherein said mobile terminal comprises a 256 symbol primary synchronization code matched filter (page 4 lines 12-20 and page 28 line15 to page 29 line 8); a primary and secondary synchronization

code matched correlator; a Gold code matched correlator (page 4 lines 12-20 and page 28 line15 to page 29 line 8); and least one Fourier transform non-coherent combining frequency synchronization receiver (page 9 lines 4-15); processing said received signal using said non-coherent receiver (figure 2 block 13 page 3 lines 4-22); averaging non-coherent output values over N slot repetitions (figure 2 block 11 page 3 lines 4-22 and page 9 lines 4-15); selecting the maximum value of step c to determine said primary synchronization code (figure 2 block 13 page 3 lines 4-22); determining the slot boundary from said primary synchronization code (page 4 lines 12-20 and page 28 line15 to page 29 line 8); correlating said received signal against each of the 64 secondary synchronization codes and the 15 circular rotations of each said secondary synchronization code using said coherent combining diversity receiver, wherein the channel estimate is provided by the primary synchronization code correlator output, thereby determining 960 (64X15) coherent combining diversity output values (page 4 lines 12-20 and page 28 line15 to page 29 line 8); determining the secondary synchronization code based upon the maximum value of said 960 coherent combining diversity output values (page 4 lines 12-20 and page 28 line15 to page 29 line 8); correlating for R consecutive samples said received signal against each of the 8 possible gold codes to determine 8 Gold code diversity outputs using said non-coherent combining diversity receiver (page 4 lines 12-20 and page 28 line15 to page 29 line 8); generating a pluralities of said 8 Gold code diversity outputs (page 4 lines 12-20 and page 28 line 15 to page 29 line 8); determining said gold code based upon said pluralities of Gold code non-coherent output values; synchronizing the local oscillator of

said mobile terminal with said Fourier transform non-coherent combining diversity frequency synchronization receiver based upon said gold code (page 4 lines 12-20 and page 28 line 15 to page 29 line 8). Admitted prior art also discloses receiving signal comprises at least two diversity branches and at least two filters and processing the data in at least two diversity branches (figures 6 and 7 block 67 page 11 line 1 to page 12 line 20).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
05-29-2006